



## **NEXT MEETING**

**Sunday, April 1, 2:00 PM**

**FBO Training Room**

### **President's Message**

Dear fellow members,

Last Sunday evening, Cheryl and I completed our round robin trip to the Hawaiian Islands by auto to Portland, then flyaway via Alaska Airlines to Seattle, beautiful mountainous Kauai, Oahu, Portland and return to Applegate and the end of Winter.

Now Spring has arrived and new quests greet us. We have challenges to meet in hangar cleanup, campground maintenance, and flying breakfasts as well as Airport Days.

We must be vigorous and attractive to new members, young and older. Personally, I didn't solo until age 69!

But flyaways still beckon. I recall a solo triangle trip as student pilot in Pacific Aircraft's Cessna 152 (may it soon be repaired to fly again) to Redmond, Klamath Falls, and return to Grants Pass airport, about six hours of flight time plus a refueling stop at Redmond. If a pilot straightened this triangle route into a straight line through Redmond it would reach into Idaho. Just beyond Idaho is Montana.

Could two escapees from the local fauna truly dwell beside a private country airstrip of indeterminate length and surface all within a day's flight of Hampshire Field? One wonders.

### **March Meeting Minutes**

With both President and Vice President AWOL, the meeting was conducted by Secretary Brent Battles. Yours truly took minutes and promptly misplaced them. Haven't seen them since. The main thing I remember is that we all enjoyed Brent's commentary and beautiful photos as he recounted his 2002 round-the-country trip in his Zenith CH601 from his then-home in North Carolina. For record purposes, I'll be more than happy to

flesh out the March minutes in the May newsletter, but I'll definitely need a memory refresher. I think this dereliction of duty should eliminate me from any future consideration as a viable candidate for the office of Secretary.

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### **April Meeting Program**

Scheduled for the next Chapter meeting is a member talk by David McGlooin and is titled "The Worst Airplane I've Ever Flown".

Dave is a long time Chapter 725 member and has enjoyed a long history in aviation flying numerous aircraft for civilian, military (Navy), part 135, airline, and finally U.S. Customs Service flying drug interdiction missions from South America to Canada.

If you are interested in aircraft crashes (that he personally caused), million watt radars that could scramble all the TV's in Puerto Rico in one pass, flying formation at night with no lights, and the most compromising aircraft flown along the way, you might want to stop by to hear what Dave has to say.

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### **Member's Aircraft and Projects**

Given the extensive amount of material in this month's newsletter, I'm going to temporarily suspend the list. I'll periodically reprint it in its entirety when I have updates to include.

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### **Springtime: When the Squirrels Come Out**

Drinking coffee by the window on a spring morning, watching the squirrels emerge from their winter sleep and cavorting to and fro, brings to mind the nature of springtime weather. Changing direction abruptly and unpredictably.

### **An Ill Wind Blows**

Two partners who had established a successful business transplanting cattle embryos throughout the west had purchased this Turbo Cessna 182 RG in which I was giving transition training. We'd been doing numerous landings that day on Runway 11 at Nampa Airport, and had no thought that this one would be any different. Until . . .

On downwind we felt a sizable jolt that passed in an instant. Something like hard wake turbulence, yet not another airplane was within miles of us. We had noted approaching weather from the southwest, and figured we ought to wind up flying for the day after this landing.

On base leg I noticed a significant wind shift which I had not detected earlier as I couldn't see the windsock on downwind from the right side of the airplane. On final I noticed that we now had a pretty significant tail wind. And it began to rain. The approach was stable so I said, "go ahead and continue." But it soon became apparent that we weren't going to touch down soon as the scenery passed rapidly alongside. The airspeed was "right on", but the scenery wasn't slowing down after the wheels touched. And now with the runway getting wet, hard braking had the tires slipping rather than gripping. We managed to use *all* of Nampa's then existing 4,000' of runway. Why I hadn't more accurately assessed the situation and acted accordingly, I can't say, except to consider the fact that we'd flown this pattern repeatedly, the approach was "by the numbers," and hence there was probably a real "expectation bias" that shut down my thinking.

### **Nampa Springtime Glider Towing**

The wind was out of the south: a direct crosswind to Runway 29 and gusting to probably 20 knots. I had already done several tows that day using the Super Cub. Ideal gliding weather features unstable air for lift, but also can be quite squirrely.

On this tow, right after rotation I passed a gap in the tree line upwind of the crosswind, catching me so suddenly and unexpectedly that I nearly touched the right wing despite applying violent aileron correction. Having the glider in tow at least helped keep me largely aligned with the runway, and then just as quickly I was back wings-level and climbing normally.

Afterwards, the glider pilot told me he was also alarmed and thought briefly of releasing before the event passed. I was *really* glad he hadn't.

### **Springtime Breakfast at Chiloquin, Oregon**

Runway 17/35 slopes uphill to the north 36' over its 3,600' length (3,300' to Runway 17's displaced threshold - placed to clear trees 1,300' north of the runway reaching to 4,330').

We had flown into Chiloquin in a Cessna 172: the owner-pilot, another large-sized adult and his child, and myself in the right seat. Arrival was in light and variable wind, landing uphill. During breakfast across the highway from the airport we noted a wind shift out of the north, which had us questioning the advisability of the normal downhill departure which also avoids the trees to the north. The aircraft's owner and pilot nodded to me as a flight instructor to work the numbers. I figured, all things considered, we could achieve a safe, albeit challenging, uphill and upwind departure. We decided that downhill and a tailwind of at least 15 knots and still a few trees ahead, wasn't an option.

Given the first few hundred feet of runway was relatively level, the headwind, and flying the aircraft's prescribed obstacle-clearance airspeeds, we began our roll. We became airborne in a reasonable distance, but the climb rate wasn't measuring up. The view out the window wasn't looking promising. We had neglected to factor in the downslope wind from the north which, combined with wind arching over the tree line ahead, which greatly diminished our rate of climb. I almost called out to abort yet with misgivings as to our ability to stop, when the pilot veered sharply to the left following a cut in the low hill through which the highway ran. Over the road we were seemingly about the height above ground equivalent to grille height on a

semi-truck (of which, fortunately, not a one was headed in our direction). Soon through the cut we were in open terrain for which our rate of climb was sufficient.

### **Moral of the Story:**

Springtime brings very changeable weather - changeable within minutes. As well as generally "squirrely" air both horizontally and vertically. Look for signs of change: approaching weather systems, current and forecast winds aloft, and forecast of turbulence. With any sign of change in conditions, unless you're prepared (timewise and mentally) to spend the night at your destination, you should consider going someplace else or just staying at home.

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### **Airport Happenings**

Ultralight pilots are an integral part of the aviation community here at Grants Pass. Ultralight flying is also actively supported and encouraged as part of EAA as can be seen in numerous articles and photos published in *Sport Aviation*. In the interest of furthering our education and also encouraging ultralight pilots to join us, I asked Dave Palmer to submit an article and photos for the newsletter and I really appreciate him providing the following material. Regardless of our backgrounds or past professions, we all pursue flying as a recreational activity. It matters not what wings we choose.

#### **Welcome to the World of Ultralights-Dave Palmer**

Today many general aviation and sport pilots are vaguely familiar with the earliest aviators and their creations; Otto & Gustav Lilienthal and their first ultralight flights in 1891, and Orville and Wilbur Wright and their powered Flyer in 1903. Yet we remain blissfully unfamiliar of today's modern ultralights, which are quite literally the direct descendants of the earliest form of aviation. Even the FAA. (Which is a good thing).

The FAA did finally codify this segment of aviation in Part 103 (all 2 pages) in 1982. That it took 91 years after the very first ultralight experimenter, Otto Lilienthal (and those that followed him in America) for the FAA to get it together is way beyond the scope of this article!

That being true, we shouldn't either be surprised by the fact that it took 101 years after the first Light Sport Aircraft "LSA", an amateur built aircraft by the Wright brothers and also their successful powered "Flyer" for the FAA to adopt the Sport Pilot rule!

It's fair to say that aviators (and FAA bureaucrats) stick with what they know and are pretty reluctant to embrace new forms of flight, until it becomes obvious that these "new" contraptions are here to stay. So let's take a few minutes and look at a particular modern ultralight, the "hang glider".

An odd turn of phrase, "hang glider". No one can be sure of the etymology. But the very phrase gave rise to the public misunderstanding that we somehow hung, even grasped by hand, our machines in flight. Otto's and Wilbur's contraptions were very similar in this regard. (There was a lot of misunderstanding surrounding their machines!)

It's true that Otto's wing and an early "batwing" delta hang glider both shared a common shoulder framework that the aviator hung his arms over for support while in flight. And quite naturally all these designs relied on

the lightest weight and highest strength materials of their era. To the highest degree possible, each design was greatly influenced by direct observation and emulation extracted from ornithological study.

But what I find most satisfying, from an aerodynamic perspective is this: From their observations of bird flight came the ingenious principle of “wing-warping”. A most efficient means of control consistent with an economy of structure. Thus “wing-warping” was employed by these earliest aviator-inventors, and is precisely the same design principle employed today by the modern hang glider to achieve the same goal; lateral or directional control - the turn!

It’s also true that advanced designs of modern hang gliders, capable of flights beyond hundreds of miles, altitudes of up to 17,999MSL, and speeds just below three digits were all achieved only after decades of trial-and-error and at great human cost. This has been true for *all* aviators: We all fly over the graves of daring aviation predecessors.

I’ve flown hang gliders for 40 years, since we few first appeared in southern Oregon in the mid-1970’s. It might be surprising to some that after piloting supersonic jets, tactical airlift, heavy transport, and turbo-props for 35 years and many thousands of hours, I still prefer this elemental form of flight. And I’m far from alone in that regard: Many pilots that first began their aviation careers, (be that for profit or pleasure) by learning to fly hang gliders, have continued that first passion for their entire lives, even while piloting other “more sophisticated” forms of aircraft.

So, why is this so? Well, it’s really quite simple. It’s the elemental joy and challenge of the experience of flight in its simplest of forms, that most emulates man’s dream of flight...like the flight of birds that we aspire to. And, like Otto’s glider, unpowered and powered ultralights are an affordable and exciting form of flight.

Here at 3S8, these craft take various forms: the conventional looking Quicksilver, and the unconventional but more common “trike” which looks like a hang glider with a tricycle gear and pusher prop configuration. Some of these powered ultralights are a bit heavier (>254 lbs) than their gliding first cousins (<155 lbs) as defined in Part 103. But all were derivatives of the early hang gliders.

The light sport aircraft category was affirmed by the FAA in 2004 in response to “*heavy ultralights*” which legalized the category to 1,320 lbs in powered paraglider, gyro, airplane and weight-shift classes. Since then, (2004) many EAA members have become enthusiastic aviators with sport pilot licenses in hand, (no medical necessary).

Ultralights, in contrast, require neither a pilot license nor a medical. The responsible “ultralight operator” is therefore, not a “pilot” in a legal sense. But we have the same access to uncontrolled airfields like 3S8, and so have a duty to understand and comply with many aviation principles not described in Part 103.

By welcoming this segment of enthusiasts to our local EAA Chapter, we are strengthening and broadening our brotherhood as aviators, in the oldest tradition of aviation. After all, ultralight fliers possess the same spirit of innovation and daring that Otto & Wilbur, Orville & Gustav, (not to mention a bunch of crazy Frenchmen) brought to the public-at-large, which changed the world forever! Our goals as aviators are the same; to innovate, create, to promote safety and recreation, and to share our passion with each other and the public by showcasing our craft, our dedication and our camaraderie.

So remember, we are all “those magnificent men in their flying machines...” (I forget how the rest of that goes...) Above the beautiful mountains of southern Oregon!

Dave Palmer’s Quicksilver MXL Sport, a descendent of a lighter, unpowered, foot-launched glider designed in the early ‘70’s.



Dave Heckart, long time trike pilot at his 3S8 hangar prepping for a local 2-ship flight to Beagle SkyRanch.

A gathering of LSA’s and ultralights at Myrtle Creek for a day of fun local flying. Good friends, good day.





## Watching the Big Iron at Work (Thanks Joe)

Did you know there's a refueling track right over the top of us? I didn't until Joe Williams mentioned it. We were able to actually see a refueling flight in progress several days ago through the broken clouds. There they were almost 5 miles above us, a C-17 headed south pulled up to its flying fuel pump. Joe asked one of his Air Force friends, a former KC10 pilot, to tell us just what is involved in flying refueling missions we may occasionally get the opportunity to see in progress overhead. One of the photos following the text shows the view from a lot closer up although, in that case, the refueling aircraft is not a KC10.

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From my friend, Lt. Col. Chris Reeder, USAF.

Hi Joe, sure!

Most of the CONUS (domestic, local) air refueling information is unclassified. Unfortunately, I don't have a copy of the DoD Flight Information Publication (FLIP) but I think the domestic tracks are listed in AP/1B. One of the most common tracks we flew out of both Beale and Travis was AR-7BA. The "B" track is northbound, while the "A" track is southbound. It starts near Red Bluff, CA and turns around near Lakeview, OR. There are 2 main types of air refueling patterns--anchor pattern (or "racetrack") and a track, which is a bunch of straight-line segments strung together. Anchor patterns are usually used to refuel fighter receivers while tracks are normally for refueling heavy receivers.

The normal air refueling base altitude for most receivers is [FL260](#). The tanker executes either an enroute or a point parallel rendezvous with the receiver. The enroute rendezvous is where the tanker and receiver both meet at the same point in space (called the Air Refueling Initial Point, or ARIP) at the same time (called the Air Refueling Control Time, or ARCT), with the tanker at [FL260](#) and the receiver at [FL250](#). Once the receiver and tanker are visual with each other and the receiver is within 1 mile of the tanker, the boom operator will clear the receiver to the "astern" or pre-contact position, which is 50 feet behind the tanker and slightly below, so the receiver will climb out of [FL250](#) to the astern position. Once the receiver is stable in the astern position with some other criteria met, the boom operator will clear the receiver to the "contact" position, at which point the receiver will close at approximately 1 foot/second until in the contact position, at which point the receiver will maintain the contact position (basically just flying close-trail formation behind and below the tanker), and the boom operator will "fly" the boom to and extend the telescoping portion to "plug" the receiver. Both boom operator and receiver pilot will then acknowledge over the radio with "contact" under normal emission control conditions "EMCON 2."

The point parallel rendezvous is where the tanker flies an "orbit" pattern at base altitude (normally [FL260](#)), waiting for the receiver to arrive at the Air Refueling Control Point (ARCP) at the ARCT. When the receiver is at the pre-determined range from the tanker (approximately 25 nautical miles) and the tanker is headed in the opposite direction as the receiver (head-on) at an offset of approximately 11 miles, the tanker will initiate a 180-degree turn toward the receiver in order to roll out in front of the receiver heading the same direction exactly 1 mile in front and 1000 feet above the receiver if executed properly. If the tanker rolls out behind the receiver by mistake, both aircraft will execute "overrun" procedures, where the tanker speeds up (in the KC-10, the speed is 335 KIAS) and the receiver slows down until the tanker overflies and is 1 mile in front of the receiver. Then, the normal closure to astern and contact will commence as in the enroute rendezvous.

Hope this helps give you a little insight!

Chris



I think I see Grants Pass airport down there.

Col. Reeder is on the left.  
Joe says he also flies a Pitts.  
Now that airplane would fit  
right in here.



KC10 Flight Crew



## Eagle Flights/Flying Start

Here is something we might look into for a future activity. The March *Sport Aviation* included two short articles on reestablishing an old program called “Flying Start” which was intended to encourage interested adults to pursue their dream of flight. They will couple it with the current “Eagle Flights” program, an adult version of the Young Eagles, which I was not even aware of. I’d like to suggest that someone offer to check this whole thing out to see exactly would be involved and if we might be interested in organizing a one-time event for later in the year. If it looks doable, we might even be able to partner with Pacific Aviation.

## Future Happenings

If you know of any aviation events coming up over the next several months, please let me know. This is where they will appear.

April 7: First Oregon Aviation Historical Society fly-in breakfast of the season. 8:00-11:00. Repeated every 1<sup>st</sup> Saturday monthly through November. Only 90 statute air miles from G. P.

June 3: “Beaverton Outlaws” presentation by the OAHS at our hangar following the June meeting. I’ll have some details to present at the meeting.

July 6-8: Arlington Fly-in, Arlington, WA.

Aug 17-19: Independence Chapter 292 Fly-in. 20+ forums plus the 2<sup>nd</sup> annual Alaska-style STOL competition. A preliminary schedule is on their website, eaa292.org. Website says on-line registration opens “soon”.

**Special Note: 2018 Airport Day is June 23<sup>rd</sup>**

## And Finally



Phil Cloutier helps Dave McGlooin Install the wings on his Sonex. Several others of us were in attendance, but we served in a supervisory capacity.

**EAA Chapter 725  
Grants Pass, OR – 3S8**

**Meets: 1st Sunday of the month- 2PM**

**Nate Riffle.....President**

**Joe Williams.....Vice President**

**Brent Battles.....Secretary**

**David Applegate.....Treasurer**

**Stan Loer.....Newsletter Editor (stazel@cpros.com)**

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